

**BY ORDER OF THE SECRETARY OF THE
AIR FORCE**



AIR FORCE INSTRUCTION 32-7042

12 MAY 1994

AIR FORCE MATERIEL COMMAND

Supplement 1

18 MAY 1995

Civil Engineer

**SOLID AND HAZARDOUS WASTE
COMPLIANCE**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air Force Instruction implements Air Force Policy Directive 32-70, *Environmental Quality*. It identifies compliance requirements for all solid and hazardous waste, except radioactive waste. In the United States and its territories, use this guidance with applicable Federal, State, and local standards for solid and hazardous waste. (See AFI 32-7006, *Environmental Program in Foreign Countries*, for solid and hazardous waste compliance requirements at installations outside the United States and its territories.)

(AFMC) This supplement applies to all offices of record within AFMC. Unless otherwise noted, the guidance and procedures outlined in this supplement apply to all AFMC installations within the United States. Additionally, it applies to the AFMC government owned-contractor operated facilities where annotated. The AFI and supplement identify compliance requirements for all solid and hazardous waste, except radioactive waste. In the United States and its territories, use this guidance with applicable Federal, State, and local standards for solid and hazardous waste. Centers may further supplement this instruction, as required. If supplemented, submit a copy to HQ AFMC/CEV, 4225 Logistics Avenue, Ste 8, WPAFB OH 45433-5747. It does not apply to the Air National Guard or US Air Force Reserve units and members.

AFI 32-7042, 12 May 1994, is supplemented as follows:

SUMMARY OF REVISIONS

This is the initial publication of AFI 32-7042, substantially revising AFR 19-11. This AFI contains new requirements for solid and hazardous waste characterization, training, accumulation, turn in, and disposal. It also outlines new procedures for managing disposal contracts, inspections, permits and record keeping, and host-tenant support. Additionally, it eliminates all requirements pertaining to radioactive waste management.

Chapter 1

HOW TO USE THIS INSTRUCTION

1.1. Applicable Standards and Regulations. Use the procedures in this instruction to comply with applicable Federal, State, and local standards for solid waste (SW) and hazardous waste (HW) management.

1.1.1. For SW, the applicable Federal standard is Subtitle D of Title 40, *Code of Federal Regulations* (40 CFR) Parts 240 to 244, 257, and 258.

1.1.2. HW regulations are in Subtitle C, 40 CFR Parts 260 to 272.

1.1.3. Follow the more restrictive standard if State or local compliance requirements are more protective than the Federal standards.

1.1.4. Air Force activities in foreign countries must manage SW and HW to comply with the Final Governing Standards or, in their absence, the *Overseas Environmental Baseline Guidance Document*.

1.2. Concept:

1.2.1. The Air Force must safely manage SW and HW and comply with laws and regulations to protect the environment and the people living and working on and off Air Force facilities.

1.2.2. This instruction is intended to provide major commands (MAJCOM) and installations a framework for complying with environmental standards applicable to SW and HW.

1.2.3. MAJCOMs provide additional implementing guidance in their supplements to this AFI. The MAJCOM supplement must identify the specific "actors" who have implementing responsibility and include any "how-to" guidance needed to comply.

1.3. Responsibilities:

1.3.1. The Assistant Secretary of the Air Force for Manpower, Reserve Affairs, Installations, and Environment (SAF/MI) promulgates and oversees policy for SW and HW compliance.

1.3.2. The Civil Engineer (HQ USAF/CE) formulates policy, allocates resources, and oversees execution of SW and HW compliance programs throughout the Air Force.

1.3.3. MAJCOMs provide execution guidance and oversee implementation. All references to MAJCOMs include the Air National Guard Readiness Center (ANGRC) and other agencies that HQ USAF calls "MAJCOM equivalent."

1.3.4. (Added-AFMC) CENTER Environmental Management/Environmental Flight. Managers responsible for hazardous waste (HW) and solid waste (SW) compliance have been established within Environmental Management (EM) organizations at all centers to assist waste generators in complying with SW and HW regulations and provide guidance and oversight in handling and disposal of HW.

1.3.4.1. (AFMC) The Environmental Management organization (or environmental flight) appoints a HW and/or SW Program Manager to plan and develop the installation's compliance strategy with federal/state/local and Air Force regulations. EM functions as the chief liaison for the installation's HW disposal contract and is a key player in the development of the center's HW

training plan. The EM function is responsible for developing a formal installation HW Management Plan that implements base specific operating procedures in accordance with Air Force policy and HW regulations. The EM HW manager approves the establishment of all HW storage sites, ensures that appropriate HW managers and coordinators are appointed basewide, and institutes an installation HW self-inspection program.

1.3.4.2. (AFMC) Each two-letter director/unit commander of all HW generating activities on an installation must appoint at least one Unit Environmental Coordinator (UEC) to be the focal point or chief liaison for HW management and disposal compliance. The UECs must be able to accurately report to EM on their organizations' HW compliance status and ensure that center HW policy/guidance or written procedures are implemented throughout the unit/organization. The UECs must have the authority to report directly to the two-letter director/unit commander and coordinate with the EM function on all HW management issues. UECs conduct quarterly inspections of all HW sites and processes within their organization/unit. They must also participate in monthly HW evaluations of facilities/sites outside their organizations if a central inspection team is in effect under the direction of the center commander.

Chapter 2

HAZARDOUS WASTE PROGRAM

2.1. General Requirements:

2.1.1. Installation Commanders take responsibility for complying with HW disposal laws. Disposal of HW by the DRMO or by Air Force contractors does not relieve the installation commander of this obligation.

2.1.1.1. The base Environmental Protection Committee (EPC) works with the installation commander to oversee compliance with HW laws per AFI 32-7005, *Environmental Protection Committees*.

2.1.2. Installations submit programming and budgeting needs for facilities, equipment, and manpower per AFI 32-7001, *Environmental Budgeting* and AFI 65-106, *Appropriated Fund Support of Morale, Welfare and Recreation Programs and Nonappropriated Fund Instrumentalities*.

2.1.3. Installations with RCRA permits for HW storage, treatment, or disposal must comply with those permits. The permits' restrictions supersede this instruction.

2.1.4. HW generators must have a HW management program to comply with Federal, State, and local regulations and this instruction. The HW management program must include:

- A hazardous waste management plan (HWMP).
- Training.
- Characterization.
- Turn-in and disposal.
- Inspections.
- Permits and record keeping.
- Host-tenant support.

2.2. Management Plan:

2.2.1. The HWMP must reflect current regulatory requirements and installation HW activities.

2.2.1. (AFMC) The center Environmental Management (EM) office/function develops a Hazardous Waste Management Plan (HWMP) and ensures that a copy is distributed to all HW generators, initial accumulation point (IAP) and 90-day accumulation site (ACCS) HW managers, members of the Environmental Protection Committee (EPC), and on-site Treatment, Storage, or Disposal Facility (TSDF) operators, if applicable. Generators must ensure that plans are available on-site for review, including EM revisions/updates during the year.

2.2.2. The EPC must update and approve the plan annually.

2.2.2. (AFMC) The HWMP must be reviewed annually and revised as necessary. New plans and major revisions must be approved by the installation EPC and implemented by the center commander. Interim amendments to the plan during the year are implemented/approved by EM. Submit a final draft copy of an initial plan or a major revision to HQ AFMC/ CEV for review. An annual status/

update of an installation's HWMP is due to HQ AFMC/CEV by 30 September each year or whenever plan is revised to meet regulatory or procedural changes.

2.2.3. MAJCOMs specify the HWMP's format and content. It contains at least the items listed in [Attachment 2](#).

2.2.3. (AFMC) The plan must address, at a minimum, the key elements provided in the AFI. In addition, the plan must include the following:

- A formal basewide HW training plan
- Center self-inspection/audit program
- Procedures for addressing accountability for FFCA related violations
- Selection criteria for containers and accumulation sites, both IAPs and ACCSs
- Waste Analysis Plan for generators and TSDF
- Procedures to manage abandoned waste
- Directions for marking, labeling, and dating containers
- Method for central tracking and control of containers
- Enforcement procedures

2.2.3.1. If the DRMO acts as the disposal agent, the HWMP must also include the HW turn-in requirements in DoD 4160.21-M, *Defense Reutilization and Marketing Manual*.

2.3. Training:

2.3.1. All personnel who work with HW and their supervisors must receive and successfully complete HW training before working with HW. They must also successfully complete annual refresher training as the MAJCOM requires. The HW training covers at least the topics in [Figure 2.1](#).

2.3.1. (AFMC) In addition to the nine training elements identified in the AFI that must be addressed in an installation's HW training program, some personnel will also require training in the following elements:

- Record keeping and Tracking
- Hazardous Waste Operations and Emergency Response (HAZWOPER)
- Department of Transportation Regulations

The center's HW training program must be formalized by developing a HW training plan, which is a component of the installation HWMP. An installation's HW training program must be tailored to incorporate not only general RCRA requirements, but also requirements specific to the installation under state/local or center commander authority, any RCRA permit or installation specific requirements set forth in the installation's HWMP. In addition, each training course will be customized to fit the specific HW management responsibilities of course attendees and targeted towards an audience with similar duties. The 12 elements should be taught at 1 of 3 levels or categories of training:

- Category 1 training would provide the trainee with expert proficiency to perform HW decision making duties,
- Category 2 training would provide the trainee with operational knowledge of a process as it relates to HW management,

- Category 3 training would provide the trainee with general awareness of compliance requirements under RCRA and the installation HWMP.

Figure 2.1. Essential Hazardous Waste Training.

TRAINING

- A. Introduction to the Resource Conservation and Recovery Act
- B. Identification of Hazardous Waste
- C. Accumulation Point Management
- D. Container Use, Marking, and Labeling, and On-base Transportation
- E. Waste Turn-in Procedures
- F. Manifesting and Transportation of Hazardous Waste
- G. Spill Prevention and Emergency Response
- H. Waste Reduction
- I. Personnel Safety and Health and Fire Safety

2.3.2. MAJCOMs set minimum instructor qualifications for HW training.

2.3.2. (AFMC) HW instructors will at least be trained to the Category 1 level of proficiency and meet state/local HW training standards. Instructors and other personnel requiring the highest level of proficiency, will attend specialized off-base RCRA training (at least two days), supplemented by local procedural training. Instructors should also attend appropriate train-the-trainer courses that teach important tools of effective classroom training.

2.3.3. HW generators keep training records of former employees for 3 years from the last day the person worked. Keep all other training records permanently.

2.3.3.1. Although MAJCOMs determine format and additional requirements, minimally training records include:

- Student's name.
- Job title.
- Job description.
- Previous HW training.
- Dates of training.
- Instructor's name.
- Test score (optional).
- Date of annual refresher course.

2.4. Characterization:

2.4.1. Installations must characterize all their HW streams. Characterization consists of:

- Identifying (waste analysis plan).

- Quantifying (HW stream inventory)
- Describing (HW profile sheet).

2.4.1. (AFMC) The installation EM function, in coordination with JAV, ensures that all waste streams are characterized in accordance with RCRA requirements (40 CFR 262.11, etc.) or applicable state requirements, when a waste stream is established or changed. The generating site's supervisor or HW manager is responsible for notifying EM of new waste streams, or any changes to current waste generating processes. Information on waste streams can also be provided by personnel operating the installation "pharmacy" system which provides centralized control of the purchase and use of all hazardous materials.

2.4.2. Waste Analysis Plan (WAP) describes procedures to identify all HW streams and those streams needing detailed HW determination. Minimally the WAP lists:

- Wastes evaluated and analyzed.
- Test methods used.
- HW sampling methods.
- Sample analysis locations and frequency.
- Description of analytical methods.
- Sample documentation.
- Sample quality assurance and quality control procedures.
- Sample request procedures.

2.4.2. (AFMC) The center's Waste Analysis Plan (WAP) must incorporate all applicable procedures for performing waste characterizations. The installation EM function is responsible for developing the installation WAP as part of the overall HWMP. The WAP will be coordinated with the Bioenvironmental Engineer (BEE) and the on-base TSDF operator. The plan requires generators to inform EM of any process changes or newly established waste streams. A copy of the completed plan must be distributed to each HW generator, accumulation site manager (at least at the three-letter level), and the TSDF operator. (NOTE: Installations that own an on-site TSDF may be required to develop a separate, more specific WAP for their TSDF.)

2.4.2.1. To analyze the waste stream, ask the person who generated the waste about it and do the analytical tests that 40 CFR 261.10 describe.

2.4.2.1. (AFMC) The installation EM function ensures that waste streams are analyzed in order to characterize wastes and determine RCRA land disposal restrictions. Waste analysis procedures are performed in accordance with the installation WAP. All waste stream analysis results or other information used to identify a particular waste stream must be documented by EM and readily available at the generation site.

2.4.2.2. Require chemical analysis for waste streams of chemical mixtures.

2.4.2.3. MAJCOM supplements to this AFI specify sampling frequencies for HW streams.

2.4.2.3. (AFMC) Sampling frequencies for HW streams, must meet minimum EPA or state criteria. Centers can refer to the Armstrong Laboratory's (Brooks AFB) technical report "The RCRA Waste Analysis Plan," AL/OE-TR-1994-0109, and/or EPA waste analysis guidance.

2.4.2.4. Reevaluate streams as needed to make sure waste stream characteristics have not substantially changed (for example, the manufacturer substitutes nonhazardous chemicals for hazardous chemicals). **Figure 2.2.** gives the recommended re-evaluation frequencies for chemical mixture waste streams. Describe the re-evaluation in the WAP.

2.4.2.5. As part of WAP/HW profile record-keeping, document chemical and physical analysis for each waste stream sampled.

Figure 2.2. Reevaluation Frequencies for Chemical Mixtures.

REEVALUATION FREQUENCIES

A. High volume HW streams. Sample and analyze each waste stream of more than three 55-gallon drums per year at least annually or whenever processes, materials, or materials manufacturers change.

B. Low volume HW streams. Sample and analyze each waste stream of three 55-gallon drums or less per year at least every 3 years or whenever processes, materials, or materials manufacturers change.

2.4.3. HW stream inventory describes all HW streams generated. All Air Force installations must have a waste stream inventory that lists at least:

- Generating activity's identity.
- Generating activity's location.
- Unique waste stream number.
- Estimated annual quantity disposed.
- Disposal location.
- Disposal method.
- Waste characteristics (for example, EPA waste code, state waste code, and EPA priority pollutant number).

2.4.3. (AFMC) The installation EM function is responsible for maintaining a complete and current HW stream inventory. The HW generating site supervisor ensures that all waste streams are reported directly to EM. Any changes to a waste stream or process should be reported to EM immediately. The EM office and UECs conduct annual and quarterly audits respectively to check the accuracy of the HW inventory. The inventory, along with corresponding accumulation site locations and appropriate maps, must be included in the center HWMP.

2.4.3.1. (Added-AFMC) Along with the HW stream inventory, EM must implement a central container tracking system to monitor and control HW containers used at all sites (initial and 90-day accumulation areas). Activities that generate regulated waste and need to store waste for a temporary period must obtain direct approval from EM and use only EM approved/issued containers. Each container must be marked with a unique container identification number provided by EM. The container log system, manual or automated, should account for the latest status of containers being used to store HW. This includes location of the container, type of waste, and time remaining until the waste must be moved. Time limits for the movement of containers are established by EM, but must meet minimum regulatory limitations. The installation HWMP must out-

line procedures to ensure timely transfer of container information from HW storage sites to EM. This will require a reporting mechanism which ensures timely flow of data between IAPs and 90-day ACCS HW managers/ supervisors. Generating organization UECs must ensure that HW site managers provide timely reports to EM. EM continuously studies ways to reduce the number of containers being used basewide to store HW. This includes concentrating waste minimization efforts on large waste streams requiring several containers each year.

2.4.4. HW Profile Sheet gives details of each HW stream.

2.4.4.1. Document the waste stream description on HW profile sheet, Defense Reutilization and Marketing Service (DRMS) Form 1930.

2.4.4.1. (AFMC) The EM function must ensure that HW characterization documents, including HW profile sheets for each waste stream are available.

2.4.4.2. The WAP and waste stream inventory contain much of the information you need to complete DRMS Form 1930.

2.4.4.3. To use a different profile sheet MAJCOMs must obtain HQ USAF/CEV approval.

2.4.4.3. (AFMC) AFMC installations will use DRMS Form 1930, or local variations approved by DRMS, to profile HW streams. To use a different profile sheet, the installation EM must inform HQ AFMC/CEV, so the command can seek AF/CEV approval.

2.4.5. Handle all uncharacterized wastes as HW and manage per 40 CFR 262.34, pending determination.

2.4.5. (AFMC) Any abandoned containers (empty or full), without labels, found within installation property, must be reported by the discoverer to the installation EM office immediately. If the container is located on the premises of a center organization/tenant or contractor area of responsibility, the owner/operator of the site should take immediate custody of the container. If the custodial organization or EM perceives an apparent threat of a hazardous release, it must then respond in accordance with the installation's Emergency Response Plan. All contractual agreements with off-site companies must address HW generation during on-site activities conducted by non-installation personnel.

2.4.5.1. For the accumulation start date, use the waste discovery date.

2.5. Accumulation:

2.5.1. Accumulate HW following Federal and State regulations.

2.5.1.1. Minimize the number of accumulation locations to facilitate compliance.

2.5.1.1. (AFMC) EM reviews, approves, and documents all initial accumulation points and accumulation sites on-base. Installations must receive written approval from EPA or the state, if the state has an approved RCRA program, regarding procedures used at initial accumulation points that might be subject to different interpretations under RCRA.

2.5.1.2. Name an individual to manage each accumulation site properly, including its condition and use.

2.5.1.2. (AFMC) Each generating activity assigns a primary and alternate HW manager for each IAP and 90-day ACCS. The two-letter director/unit commander appoints the managers. A copy of the appointment letter must be forwarded to EM for the record. All supervisors of HW appointees

ensures the appointees' job descriptions and performance plans reflect their HW management responsibilities as a primary employment duty. The site HW managers are provided with the flexibility to communicate directly with the UEC and EM concerning the management of the storage sites. EM personnel and UECs must ensure that site HW managers use daily operational and weekly inspection checklists to check the compliance status of their particular location. EM reviews, modifies, and approves all checklists developed by UECs or HW site managers before use. The HW manager's immediate supervisor endorses the weekly inspection checklist each week.

2.5.1.3. (Added-AFMC) IAP and ACCS HW managers must ensure that all containers used to accumulate HW are affixed with an EM-issued standard HW label. This label must contain waste profile/constituent and tracking information consistent with state/federal HW management and shipping requirements. The label is used throughout the storage and movement of the container on-base. A hazard class label must also be affixed to every container. Containers will be checked daily and during all other inspections to ensure proper labeling. All unlabeled containers will be considered HW containers.

2.5.1.4. (Added-AFMC) Each initial accumulation point and 90-day accumulation site HW manager maintains a container tracking log, which, as a minimum, records the date a container was put into service, date full, waste stream identification, and date and location to which container was moved. HW managers report the status of containers to EM for the central container tracking system.

2.5.2. Installations must not manage HW that the DoD does not own except as DoD Directive 6050.8, *Storage and Disposal of Non-DoD Owned Hazardous or Toxic Materials on DoD Installations*, authorizes. *EXCEPTIONS:* Actions to protect the public (for example, temporary storage or disposal of explosives) are permitted.

2.5.2.1. MAJCOMs forward requests for exception to HQ USAF/CE, who in turn forwards them through SAF/MI to the Deputy Undersecretary of Defense for Environmental Security (DUSD[ES]).

2.5.2.1. (AFMC) Centers forward requests for exceptions to HQ AFMC/CEV, who in turn forwards them to HQ USAF/CE.

2.5.2.2. When the non-DoD waste meets exception criteria, the waste's owner must prepare and obtain all needed permits, meet financial requirements, and prepare required environmental documentation before using Air Force property.

2.5.2.3. The waste's owner must leave the facility in its original condition.

2.6. Turn-in and Disposal Procedures:

2.6.1. For HM:

- Installations must make maximum use of HM before sending it to DRMOs for disposal.
- Installations must make sure that HM given to the DRMO for reutilization, transfer, donation, or sale (RTDS) or disposal meets the requirements of DoD Manual 4160.21-M.
- When HW fails DRMO's RTDS program, it will be disposed of as HW.

- For proper turn in and disposal, installations must attach hazard communication standard (HSC) compliant labels and material safety data sheet (MSDS) information, or include that information in the Hazardous Material Information System (HMIS).
- HM given to DRMO without these items will be disposed of as HW and the disposal cost will be charged to the generating activity.
- Air Force installations must not issue, ship, use, or dispose of improperly labeled HM.

2.6.1. (AFMC) AFMC centers must reutilize HM to the maximum extent possible before turning in to the DRMO for RTDS. The first step in disposition of HM should be to consult with the HM Pharmacy. Excess HM, ordered by a particular organization/unit through the installation pharmacy that fails the DRMO RTDS process, will be disposed of as HW. The disposal cost will be charged to the generator that ordered the material, unless the pharmacy determines that base supply failed to control the amount procured based on generator identified needs. EM implements procedures that enables them to be reimbursed for costs associated with HM disposal.

2.6.2. For HW:

- Installations follow DoD Manual 4160.21-M when turning HW into DRMO.
- Inform HQ USAF/CEV of any suggested improvements to DoD Manual 4160.21-M and any MAJCOM implementing procedures.
- Installations make sure all HW is weighed in the presence of an authorized DoD official.
- DRMS, through their DRMOs, act as the DoD HW disposal agent.
- Installation commanders may use other disposal agents if the commander decides it is in the best interest of the Air Force and the MAJCOM agrees.
- Consider comparative disposal cost, Government liability, and the qualified and experienced contractors available.
- MAJCOMs send HQ USAF/CEV copies of all approvals.

2.6.2. (AFMC) Installations may use other disposal agents if the commander decides it is in the best interest of the AF, and the center obtains a waiver from AFMC/CEV. Installations must coordinate with their JAV in making this decision.

2.7. Disposal Contracts. After you've decided to contract for HW disposal and recycling, develop and submit documents to the operational contracting officer (OCO) per AFI 64-102, *Operational Contracting*. These documents include:

- Request for purchase.
- Performance work statement.
- Quality assurance surveillance plan.

2.7.1. Document Preparation. See AFI 64-108, *Service Contracts*, which tells how to write a performance work statement and a quality assurance plan.

2.7.1.1. The Staff Judge Advocate and the base environmental manager review and approve these documents before sending them to the OCO. Their reviews ensure that documents follow Federal, State, and local regulations and requirements.

2.7.2. Contracts and Requirements. HW disposal contracts and recycling requirements must:

- Be at least as stringent as DRMO requirements.
- Honor existing contracts written by the DRMO.
- Follow the MAJCOM's contracting practices.

2.7.2.1. The contracting office writes a solicitation and a contract, using provisions and clauses from the Federal Acquisition Regulation (FAR) and its supplements, including those of FAR part 23, *Environment, Conservation, Occupational Safety and Drug-Free Workplace*.

2.7.2.2. Contracts for HW disposal must require the contractor to make sure its employees receive appropriate training as Federal, State, and local law requires.

2.7.3. Inspections of Contractor Facilities:

2.7.3.1. If appropriate, survey and visit the proposed treatment or disposal site for all potential contractors.

2.7.3.1. (AFMC) HW disposal sites used by the installation independent of DRMO contracts must be inspected by EM personnel at least once a year. EM personnel also review documents, state/EPA RCRA reports to ensure disposal site has a good compliance record.

2.7.3.2. Before awarding a contract, verify the permits held by the various treatment or disposal sites.

2.7.3.3. Evaluate all proposed HW transport contractors the same way.

2.7.3.4. Do on-site "no notice" followup verification audits for all contractor HW treatment and disposal facilities receiving Air Force HW. Do these inspections yearly to verify proper "cradle-to-grave" waste handling and disposal.

2.8. Inspections. The HW program consists of scheduled and unscheduled inspections of HW activities.

2.8.1. Perform internal and external environmental compliance assessments per AFI 32-7045, *Environmental Compliance Assessment and Management Program (ECAMP)*.

2.8.1. (AFMC) In addition to the ECAMP program, EM must implement a RCRA self-inspection program that includes the following:

- Daily operational and weekly inspections of all HW temporary storage locations. Inspections conducted by site HW managers and their supervisors using checklists approved by EM.
- Monthly inspections of all sites conducted by an installation HW Site Inspection Team (HWSIT). The team is comprised of all UECs on-base and is organized and scheduled monthly by EM. The team reports findings to the site supervisor, two-letter director/unit commander, and EM. Center commanders may decentralize the HWSIT as the evaluation procedure matures and installation shows positive results.
- UECs conduct quarterly inspections of their own HW sites and processes and forwards results to the two-letter level with a copy to EM. As part of their inspection, UECs must review completed, signed weekly inspection forms to ensure weekly inspections are performed and the appropriate corrective actions are taken.

2.8.2. Installation commanders also conduct no-notice inspections of HW generating, accumulation, and storage activities.

2.8.3. Document findings and begin corrective actions promptly.

2.8.4. As security requirements permit, support environmental compliance inspections.

2.9. Permits and Record Keeping:

2.9.1. Note that the installation commander signs environmental permits and receives regulatory agency correspondence and enforcement actions.

2.9.1.1. Have the commander or designated individual signs the manifests that track off-base HW shipment and recycling.

2.9.1.2. Send the MAJCOM and the appropriate Air Force regional compliance office a copy of each HW permit application and HW permit.

2.9.1.3. (Added-AFMC) All AFMC centers pursuing a RCRA permit for an on-site TSDF, or seeking to change or amend a current TSDF permit, are required to submit the appropriate information/notices to the EPA or governing state agency. These submittals may be necessary if there are any major process changes or newly identified waste streams stored at the TSDF.

2.9.1.4. (Added-AFMC) The installation EM function is responsible for submitting all permit applications, permit amendments, and permit changes to the EPA or applicable state agency. EM must involve the installation JAV and DRMO (if applicable) in the permitting process, including decisions on applying for a permit/permit modification, preparing the applications, holding any public meetings, and commenting on the draft permit. EM will also ensure that installation meets all conditions and obligations delineated in the TSDF permit or interim status and prepare and submit all regulatory reports, again with JAV coordination.

2.9.2. Track HW with the EPA HW manifest (or State equivalent) and report HW management activities per AFI 32 7002, *Environmental Information Management Systems*.

2.9.2.1. MAJCOMs whose HW tracking and reporting systems differ from AFI 32-7002 must get HQ USAF/CEV approval in order to use them.

2.10. Host-Tenant Support:

2.10.1. The Air Force supports the HW disposal needs of both Air Force and DoD tenants on Air Force installations.

2.10.1.1. For intraservice support, host Air Force installations plan and fund for their tenants' HW disposal needs per AFI 32-7001.

2.10.2. Tenants:

- Follow all laws and regulations and the installation HWMP.
- Provide input and submit reports that the HWMP requires.

2.10.2.1. When tenants do not comply with HW laws, the installation commander may take any action needed to require them (and their contractors) to comply.

2.10.2.2. Tenants responsible for HW management facilities must seek permitting through facility-wide permits. The tenant then signs as "operator" and the installation commander signs as "owner."

2.10.3. If a tenant organization generates enough HW to burden the host, the host and tenant negotiate an agreement on how much the tenant pays for HW disposal.

EXCEPTIONS: All industrially-funded Air Force tenants and Services activities. These activities pay their operation and maintenance expenses, including HW disposal costs.

2.10.3. (AFMC) AFMC centers must document any negotiated agreements on HW management responsibilities and HW disposal payments in the official host-tenant agreement. EM develops procedures that enables them to be reimbursed by activities responsible for paying their own HW disposal costs, including industrially-funded Air Force tenants and Services activities.

2.10.3.1. AFI 65-106 gives instructions for funding HW disposal for MWR activities.

2.10.4. For interservice support of a DoD component or agency tenant, host installations may seek reimbursement for HW disposal costs for on- and off-base tenants, following the procedures in AFI 65-601, volume 1, *USAF Budget Policies and Procedures*.

2.10.4. (AFMC) The environmental function at AFMC installations providing HW management and disposal support, must seek reimbursement and implement appropriate measures to transfer costs back to the generating activity.

2.10.4.1. If host-tenant support agreements (HTSA) or interservice support agreements (ISA) do not reflect reimbursement procedures, renegotiate. In the negotiations:

- Consider budget lead time to minimize the effect on tenants.
- Give the installation commander wide latitude to determine the most effective arrangement for negotiating cost-sharing with tenants.
- Consider that the installation commander carries both initial and primary liability for HW management when including HW disposal services in HSTAs or ISAs.

Chapter 3

SOLID WASTE PROGRAM

3.1. General Requirements:

3.1.1. Each installation must have a solid waste (SW) management program. [Attachment 2](#) summarizes Federal SW management requirements. The SW management program must address:

- A solid waste management plan (SWMP).
- Handling, storage, and collection.
- Disposal.
- Record-keeping and reporting.
- Pollution prevention.

3.1.1.1. AFI 32-7080, *Pollution Prevention Program*, contains the SW requirements for preventing pollution through source reduction, resource recovery, and recycling.

3.1.2. Consider these costs as utility costs, not environmental compliance costs:

- Programming and budgeting requirements for facilities, equipment, and manpower.
- Tipping fees.
- On-base landfill operations to meet SW collection and disposal requirements. (See AFI 32-7001.)

3.2. Management Plan:

3.2.1. All Air Force installations must have a complete SWMP that meets the requirements of AFR 91-8, *Solid Waste Management*, [Chapter 3](#). Developed at the installation level, the SWMP contains guidance for managing SW. It supports the development and implementation of State plans RCRA Subtitle D requires. To ensure compliance with Federal and State SWMP requirements, Air Force SWMPs contain:

- Inventory and analysis of SW disposal technologies and methods.
- Inventory of SW streams and management methods.
- Analysis of SW recovery, conservation, and recycling.
- Evaluation of any on-base operating landfills.
- Plan implementation.

3.3. Handling, Storage, and Collection:

3.3.1. Installations make sure that receptacles, collection routes, collection schedules, and collection equipment (trucks) meet 40 CFR 243, DoDD 4165.60, *Solid Waste Management - Collection, Disposal, Resource Recovery and Recycling Program*, and AFR 91-8 criteria, as well as State and local requirements.

3.3.1.1. Get all permits needed for SW handling, storage, and collection (including SW transfer facilities) and perform any required maintenance inspections and notifications.

3.3.1.2. Vehicles collecting and transporting SW must meet all standards, such as:

- Motor carrier safety standards (49 CFR parts 390 through 396).
- Noise-emission standards for motor carriers in interstate commerce (40 CFR part 202).
- Federal motor vehicle safety standards (49 CFR parts 500 and 580 only for collection equipment that the Federal Government owns).

3.3.1.3. In addition to 40 CFR 243 and DoD Directive 4165.60 requirements, the collection equipment must meet the standards of the American National Standards Institute (ANSI).

3.3.2. The installation commander names military personnel, civilian personnel, or contractors as SW collection personnel.

3.3.2.1. When contractors collect waste, the contractor's SW collection plan must meet Air Force, Federal, State, and local requirements.

3.4. Disposal:

3.4.1. All solid waste disposal must meet 40 CFR 240 and 241, DoD Directive 4165.60, and AFR 91-8 criteria and State and local requirements.

3.4.1.1. These regulations and directives contain specific location, design, and operating criteria for new thermal processing and land disposal facilities. These general requirements apply to all SW disposal.

3.4.1.2. As a subset of SW, municipal SW must meet the additional, more stringent requirements of 40 CFR 258.

3.4.2. Air Force installations use municipal or regional facilities for SW disposal, when feasible. When an installation can't use such and its own facilities, their construction and operation must follow all laws, regulations, and directives.

3.4.2. (AFMC) AFMC centers who plan to construct and/or use on-site landfill facilities (e.g., sanitary, asbestos) must first obtain a waiver from HQ AFMC/CE. An exception to this waiver requirement are construction/demolition debris landfills that have been approved by the state and/or local SW regulatory agency.

3.4.3. Air Force installations must dispose of SW in a permitted secure landfill or other State-approved site, for example, a thermal-processing facility.

3.4.3.1. Note that the Air Force prefers ultimate disposal by recycling and composting. AFI 32-7080 addresses alternatives.

3.4.3.2. Verify permits and licenses for off-base landfills.

3.4.3.3. Remember each installation must obtain siting authorization, permits, and licenses to construct and operate an on-base SW landfill or thermal treatment facility. For specific guidelines, see:

- 40 CFR 240 for thermal processing of solid wastes.
- 40 CFR 258 for siting and design of municipal SW landfills.

3.4.4. Before closing an on-base landfill, plan adequate lead time for meeting post-closure requirements, typically 30 years for maintenance and groundwater monitoring. Post-closure procedures may

require long-term operation of leachate collection and treatment systems or a system for extracting landfill gas.

3.5. Inspections. The SW program consists of scheduled and unscheduled inspections of SW collection, transfer, and disposal facilities.

3.5.1. Perform internal and external environmental compliance assessments following AFI 32-7045.

3.5.2. Document inspection findings and begin corrective actions promptly.

3.5.3. As security requirements permit, support environmental compliance inspections.

3.5.4. Ensure each installation inspects industrial shop waste receptacles to make sure they contain no HW.

3.5.4.1. Keep records for at least 2 years after the inspection date.

3.5.4.2. Inform all installation personnel and especially industrial shop personnel of prohibited materials.

3.6. Record Keeping and Reporting:

3.6.1. Maintain daily operating records following the instructions for managing service contracts for refuse collection, disposal, and recycling.

3.7. Pollution Prevention:

3.7.1. AFI 32-7080 covers source reduction, resource recovery, and recycling activities.

3.7.2. (Added-AFMC) Qualified Recycling Program (QRP). Each installation will have a single QRP to serve all Air Force and other tenant organizations as outlined in AFI 32-7080, *Pollution Prevention Program*. AFI 32-7080/AFMC Sup 1 (pending) includes further QRP guidance.

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The Civil Engineer

Attachment 1**GLOSSARY OF ABBREVIATIONS, ACRONYMS, AND TERMS*****Abbreviations and Acronyms***

AF—Air Force

AFCEE—Air Force Center for Environmental Excellence

AFCEE/CCR—Air Force Center for Environmental Excellence Regional

A, D, S—Compliance Offices (Atlanta, Dallas, San Francisco)

AFI—Air Force Instruction

AFLSA/JACE—Air Force Legal Support Agency, Environmental Law Division

AFM—Air Force Manual

AFO—Accounting and Financing Officer

AFR—Air Force Regulation

ANSI—American National Standards Institute

ASD (P&L)—Assistant Secretary of Defense for Production and Logistics

CE—Civil Engineer

CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act

COPARS—Contractor Operated Parts Store

CFR—*Code of Federal Regulations*

DLA—Defense Logistics Agency

DoD—US. Department of Defense

DOT—US Department of Transportation

DRMO—Defense Reutilization and Marketing Office

DRMS—Defense Reutilization and Marketing Service

DTID—Disposal Turn-In Document

DUSD(ES)—Deputy Undersecretary of Defense for Environmental Security

ECAMP—Environmental Compliance Assessment and Management Program

EPA—US Environmental Protection Agency

EOD—Explosive Ordnance Disposal

EPC—Environmental Protection Committee

FAR—*Federal Acquisition Regulation*

FFCA—Federal Facilities Compliance Act

FOA—Field Operating Agency

GOCO—Government-owned, Contractor-operated

HCS—Hazard Communication Standard

HMIS—Hazardous Material Information System

HM—Hazardous Material

HMTA—Hazardous Material Transportation Act

HQ NGB/CE—National Guard Bureau Civil Engineer

HQ USAF—Headquarters, US Air Force

HQ USAF/CE—Headquarters, US Air Force, Civil Engineer

HQ USAF/CEV—Headquarters, US Air Force, Civil Engineer, Directorate Environmental Quality

HQ USAF/JA—The Judge Advocate General

HQ USAF/LG—Deputy Chief of Staff, Logistics

HQ USAF/RE—Chief of Air Force Reserve

HQ USAF/SG—The Air Force Surgeon General

HSWA—Hazardous and Solid Waste Amendments

HTSA—Host-Tenant Support Agreement

HW—Hazardous Waste

HWMP—Hazardous Waste Management Plan

ISSA—Interservice Support Agreement

MAJCOM—Major Command

MSDS—Material Safety Data Sheet

MWR—Morale, Welfare and Recreation

OCO—Operational Contracting Officer

OSD—Office of The Secretary of Defense

OSHA—US Occupational Safety and Health Administration

PCB—Polychlorinated biphenyl

R&D—Research and development

RCRA—Resource Conservation and Recovery Act

RTDS—Reutilization, Transfer, Donation or Sale

SAF—Secretary of the Air Force

SAF/AQ—Assistant Secretary of the Air Force for Acquisition

SAF/MI—Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations and Environment)

SAF/MIQ—Deputy Assistant Secretary of the Air Force (Environment, Safety and Occupational Health)

SBSS—Standard Base Supply System

SARA—Superfund Amendments and Reauthorization Act

SW—Solid Waste

SWMP—Solid Waste Management Plan

TSCA—Toxic Substances Control Act

WAP—Waste Analysis Plan

WIMS-ES—Work Information Management System—Environmental Subsystem

Terms

Accumulation Site—A provision of 40 CFR 262, subpart C, which allows storage of hazardous wastes for a period of up to 90 days without a storage permit, or without having interim status. Typically the sites are distant from the activities and subject to additional inspection and containment requirements in subparts I and J of 40 CFR 265. (See "initial accumulation point" in this glossary.)

Characteristic Waste—A waste with any characteristic listed in 40 CFR 261, subpart C (for example, toxicity, corrosiveness, ignitibility, or reactivity).

EPA Waste Code—An EPA HW number listed in 40 CFR 261, subpart C (characteristic waste) or subpart D (listed waste).

Generator—A person or a site, whose act or process produces HW or whose act first subjects HW to regulation. EPA and State environmental regulatory agencies typically consider the Air Force installation as the generator. Therefore, in this AFI "HW generator" refers to the installation commander or the commander's named designee.

Generating Activity—Each organization (including tenants), shop, or work area using an operation or process that first generates an HW stream. The installation HWMP must identify generating activities.

Hazard Communication Standard—A Federal Occupational Safety and Health Administration (OSHA) requirement, 29 CFR 1910.1200, that requires labeling and MSDSs so employees know materials are hazardous.

Hazardous Constituent—Any component or chemical in a mixture, found in 40 CFR 261, appendix VIII or 40 CFR 264, appendix IX.

Hazardous Material (HM)—Any material that presents a physical or health hazard and requires an MSDS as defined in the latest version of FED-STD 313.

Hazardous Material Generating Activity—Each installation organization (including Air Force and non-Air Force tenants) that creates HM requiring disposal.

Hazardous Waste—Any solid waste defined in 40 CFR 261.3 or State HW management rules and regulations.

Hazardous Waste Characterization—The identification, description, and quantification of an HW stream.

Hazardous Waste Management Plan (HWMP)—An installation-developed plan containing guidance for base personnel on local procedures for managing HW and incorporating pollution prevention practices

into HW management pollution. The HWMP should include all tenants, including Government-owned, contractor-operated (GOCO) facilities that generate HW.

Hazardous Waste Profile Sheet—A document (DRMS Form 1930) that describes the physical and chemical properties of HW.

Listed Waste—A specifically identified solid waste, material, or item listed in 40 CFR 261, Subpart D.

Manifest—HW shipping document required by Federal or State regulatory agencies for transportation of HW. Manifests that the installation commander or a named representative signs track HW to a permitted or interim status treatment, storage, or disposal facility. (Refer to 40 CFR 262, subpart B.)

Material Safety Data Sheet (MSDS)—A document containing the data required by, and prepared in accordance with FED STD 313, to communicate to the user of the chemical, physical, and hazardous properties of material.

Initial Accumulation Point—A collection point located at, or near, the point of waste generation where wastes are initially accumulated. The area must be under the control of the operator of the process generating the waste. The operator should be near the area often enough to detect a leak within a reasonable timeframe. A maximum of 55 gallons of HW or one quart of acutely HW may be accumulated in an initial accumulate point. If more than this amount is accumulated, the excess must be move to an accumulation site within 3 days of exceeding the limit. Unless the quantity limit is exceeded, there are no storage time limits that apply to initial accumulation points. Initial accumulation points are also known as satellite accumulation points.

Solid Waste—Any discarded material as defined in 40 CFR 261.2.

Attachment 2**HAZARDOUS WASTE MANAGEMENT PLAN ELEMENTS**

1. Letter of Instruction.
2. Information and Emergency Contacts.
3. Introductory Materials.
 - a. Table of contents
 - b. Record of annual review.
 - c. Record of changes.
 - d. List of tables and figures.
4. Introduction.
5. Responsibilities.
6. Organization Chart.
7. Location Maps.
8. Hazardous Waste Inventory.
9. Waste Analysis Plan.
10. Hazardous Waste Management Procedures.
11. Reporting.
12. Training.
13. Contingency Plan Summary.
14. Preparedness and Spill Prevention Summary.
15. Pollution Prevention Summary.

Attachment 3

OVERVIEW OF SOLID AND HAZARDOUS WASTE MANAGEMENT REQUIREMENTS

A3.1. Summary of Applicable Federal Laws Regulating Hazardous and Solid Waste:

A3.1.1. Occupational Safety and Health Act. The Occupational Safety and Health Act (OSHA, 29 U.S.C. 651, *et seq.*) sets standards for safe working conditions. In addition, OSHA sets training requirements for Resource Conservation and Recovery Act (RCRA) facilities and HW sites. Title 29 of the *Code of Federal Regulations*, parts 1900 through 1910 (29 CFR 1900 through 1910), contains OSHA standards. 29 CFR 1926 contains OSHA construction standards.

A3.1.2. Hazardous Material Transportation Act. The Hazardous Material Transportation Act (HMTA, 49 U.S.C. 1801, *et seq.*) of 1974 requires the Secretary of Transportation to declare standards for commercially transporting hazardous materials. These standards protect public health and safety or property. 49 CFR 170 to 179 includes the rules.

A3.1.3. Toxic Substances Control Act. The Toxic Substances Control Act (TSCA, 15 U.S.C. 2601, *et seq.*) made law a program for evaluating the harmful effects of newly manufactured chemicals. TSCA regulates the storage, treatment, and disposal of polychlorinated biphenyls (PCBs). See 40 CFR 750 and 761.

A3.1.4. Resource Conservation and Recovery Act and Hazardous and Solid Waste Amendments. The Resource Conservation and Recovery Act (RCRA, U.S.C. 6901, *et seq.*) as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1986, sets minimum standards for "cradle-to-grave" management of SW and HW. See the EPA RCRA regulations for:

- HW management (Subtitle C) in 40 CFR parts 260 to 272.
- SW (Subtitle D) in 40 CFR parts 240 to 244, 257, and 258.
- Underground storage tanks (Subtitle I) in 40 CFR 280 and 281.

A3.1.5. Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. 9601, *et seq.*) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986 authorized funds to clean up abandoned HW sites and provided that the responsible parties reimburse the Government for cleanup costs.

A3.1.6. Federal Facility Compliance Act. The Federal Facility Compliance Act (FFCA, 42 U.S.C. 962, *et seq.*) takes away the Federal Government's sovereign immunity from civil penalties for violating State, Federal, and local SW and HW laws. This legislation allows State and Federal regulatory agencies to fine Federal facilities for violating State, Federal, and local SW and HW laws.

A3.2. State and Local Solid and Hazardous Waste Management Requirements. States must adopt or enact regulations at least as stringent as Federal regulations for SW and HW. Each State has SW regulations, many of which are more stringent than Federal HW regulations. Local requirements may restrict zoning, transportation, and other activities.

A3.3. Summary of US Department of Defense (DoD) Solid and Hazardous Waste Management Requirements. The Defense Logistics Agency (DLA) provides recycling, reuse, and disposal services for each DoD installation through the DRMS and its field activities, the DRMOs. See:

- AFI 32-7080, *Pollution Prevention Programs* which addresses SW recycling.
- Chapter IX of DoD Manual 4160.21-M, *Defense Reutilization and Marketing Manual*, and DRMS-M 6050.1, *Environmental Compliance for the DRMS Hazardous Property Program*, which explain general procedures for implementing the DRMS hazardous property program .
- DoD Directive 4165.60, *Solid Waste Management - Collection, Disposal, Resource Recovery and Recycling Program*, which contains policies and procedures for managing SW per EPA SW regulations.

ATTACHMENT 1 (ADDED-AFMC)
-ABBREVIATIONS AND ACRONYMS

ACCS-Accumulation Site
BEE-Bioenvironmental Engineer
EM -Environmental Management
HAZWOPER-Hazardous Waste Operations and
-Emergency Response
HWSIT-Hazardous Waste Site Inspection Team
IAP-Initial Accumulation Point
JAV-Judge Advocate
MWR-Morale Welfare Recreation
NAF -Non-Appropriated Funds
QRP-Qualified Recycling Program
ROC -Recycling Operations Center
TSDF-Transfer, Storage, or Disposal Facility
UEC-Unit Environmental Coordinator
VOC -Volatile Organic Compound
WAP-Waste Analysis Plan

-Terms

Abandoned Container-Any container that is not under the control of an individual or organization, and ownership cannot be determined by reasonable inspection of the container.

Checklist-A written list of items to be accomplished during an operation or evaluated during an inspection.

Defense Reutilization and Marketing Office (DRMO)-AFMC agent for HW disposal and reutilization, transfer, donation, and sales of unused hazardous materials and non-hazardous commodities.

Environmental Management (EM)-The office or organization responsible for managing the center's environmental issues. This may be a separate division or the duties may fall under the Civil Engineer.

Environmental Protection Committee (EPC)-Installation committee established by AFI 32-7005 to ensure systematic interdisciplinary approach to achieve and maintain environmental quality.

Hazardous Waste Label-A label applied to a container with specific information which identifies the HW contents of the container and includes an EPA or state designated HW marking and an accumulation start date.

Hazardous Waste Site Inspection Team (HWSIT)-A team consisting of Unit Environmental Coordinators responsible for conducting monthly inspections of all HW accumulation sites.

Hazardous Waste Stream Inventory-A list of all HW streams on an installation. This list, at a minimum, includes waste stream locations, waste stream number, estimated annual quantity disposed, HW criteria and concentration limits, EPA/state HW identification number, EPA priority pollutant number, disposal container type and disposal method.

Reutilization, Transfer, Donation, and Sales (RTDS) Cycles-Cycles used by the DRMO that are applied to all personnel property, including hazardous materials, during the disposal process. It is DRMS policy to encourage maximum authorized redistribution of excess/surplus property.

Treatment, Storage, or Disposal Facility (TSDF)-Facility or site used for the treatment, storage, or disposal of HW operating under RCRA interim status, or a permit issued by the US EPA or appropriate state regulatory authority.

Unit Environmental Coordinator (UEC)-Individual appointed by each two-letter director/unit commander to operate as the chief liaison between EM and the organization concerning HW management and disposal issues.

Waste Characterization-An evaluation of a waste to determine if it is a HW. This evaluation can be conducted either by the generator's knowledge of the process generating the waste or by analytical testing.

Waste Analysis Plan-This plan describes the procedures for identifying and evaluating HW streams in order to complete a HW profile sheet on each waste stream generated.

Waste Identification-Notifying EM of a waste stream that may be hazardous.